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# TECHNICAL NOTES

LAKE STATES FOREST EXPERIMENT STATION  
UNIVERSITY FARM ST. PAUL 1, MINNESOTA

No. 307

## Porcupine Damage to Forest Plantations

That porcupines may seriously damage forest trees is generally known, but little information is available as to the size of trees which porcupines feed upon. Observations in some 10- to 15-year-old Lake States plantations indicate that porcupines prefer the larger trees, particularly those over 3 inches in diameter breast high and 13 feet in height - see table below:

### Scotch Pines of Various Sizes Injured by Porcupines in Northeastern Minnesota

| Diameter<br>breast high | Trees in size<br>class injured | Total height | Trees in size<br>class injured |
|-------------------------|--------------------------------|--------------|--------------------------------|
| <u>Inches</u>           | <u>Percent</u>                 | <u>Feet</u>  | <u>Percent</u>                 |
| Under 3                 | 1.2                            | Under 10     | 4.4                            |
| 3 - 4                   | 14.7                           | 10 - 13      | 4.8                            |
| 5 - 6                   | 30.4                           | 14 - 16      | 15.4                           |
| 7                       | 50.0                           | 17 - 20      | 36.6                           |

Study of a jack pine plantation in northern Wisconsin and a Scotch pine plantation in lower Michigan showed the same preference of porcupines for trees above these minimum sizes, and observations in 30- to 40-year-old plantations further corroborated the porcupines' liking for the larger more vigorous trees.

The practical value of these observations is this: Plantations of species which porcupines like, such as jack pine, white pine, or tamarack, probably will need protection--where porcupines are common--beginning about the time the trees reach 3 inches in diameter. Needs and plans for control can, therefore, be determined before damage actually starts.

MR

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